

Middlesex News 1850

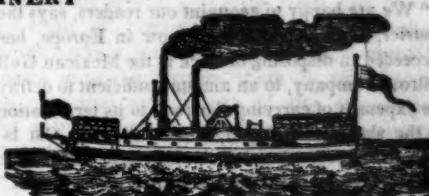
AMERICAN RAILROAD JOURNAL.

334

AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY

AND MINES.



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SATURDAY, JULY 31, 1847.

[WHOLE No. 580, Vol. XX.

Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

PRINCIPAL CONTENTS.

Mexican Gulf Railroad Company	482
New York Water Works	482
Charges on Schuylkill Canal and Reading R.R.	482
Gun Cotton.—Recent Experiments	482
Baltimore and Ohio Railroad	482
Susquehanna Railroad	485
Lehigh Coal and Navigation company	486
Progress at the Mines on Lake Superior	488
Importance of Mineral Analysis in Smelting iron.	489
Smelting Copper Ores by Electricity	489

AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 105 CHESTNUT ST. PHILADELPHIA.

Saturday, July 31, 1847.

NOTICE TO CONTRACTORS.—ANDROS COGGIN AND KENNEBEC RAILROAD. Proposals will be received at the Railroad Office, in Lewiston, until the 17th of August next, inclusive, for the Grading and Masonry of the 2d Division of this Road, extending from Green to Belgrade, near Snow's Pond, about 20 miles.

Profiles will be ready for examination on and after the 10th of August, and all necessary information will be given, either at this office, or upon application to the resident engineers on the line of the road.

Satisfactory bonds with sureties shall be given by the bidders, if required.

On the 16th of August, the Engineer will be prepared to accompany Contractors over the line of the road, commencing at the eastern end of the Division in Belgrade.

HOBART CLARK, Agent A. & K. R. R.
EDWARD APPLETON, Engineer.

Railroad Office, Lewiston, {
July 13, 1847. }

3131

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Persons wishing to transact business with Messrs. D. C. & R., will please apply to the subscriber, who will make cash advancements on consignments to their address.

July 31—3m ROBERT GRACIE.

Lehigh Coal and Navigation Company.

We give, in this number of the Journal, the last annual report of this company—with the exception of the tabular statements—a part or the whole of which will be given next week. This important work was one of the—if not *the*—pioneer works of Pennsylvania. It has been extended from time to time, and its usefulness increased very far beyond what its projectors anticipated when it was commenced; and it has probably contributed much more to the *economy and comfort* of those who use fuel, by its influence on the price of this necessary of life, than to the *profit* of those who invested their capital in its construction. We trust, however, that the rapidly increasing demand for the coal and iron of Pennsylvania will soon ensure to them liberal returns in the shape of dividends—as no class of capitalists are, in our opinion, entitled to better returns for their investments than those who construct works which so largely contribute to the comfort and prosperity of the *masses* of the people.

Western Railroad.

The greatest weeks' work ever done on any American railroad, says the Bunker Hill Aurora of 24th inst., was probably done last week on the Western railroad. The gross amount of receipts, we learn, were \$28,725, being an increase of nearly ten thousand dollars over the receipts of the corresponding week last year. The prosperity of this great enterprise is still onward. The company, we are told, have never yet seen the time when they had road furniture sufficient for their business,—this the directors propose to furnish by means of the new stock, partly payable to-day.

The editor should, of course, have excepted the Philadelphia, Reading, and Pottsville railroad, which earned over *thirty-six thousand five hundred dollars* every week of the year 1846.

Cumberland Valley Railroad.

The Carlisle Herald says that "the Cumberland Valley railroad company has made arrangements to lay a new track on the road between Carlisle and Harrisburg, and will commence the work without delay. The new rail will be a heavy bar of nearly double the thickness and weight of the old bar, and make a road far superior to the old for travelling purposes."

Why not lay the right sort of rail now? The time has arrived when none but rails of the most approved form and weight should be used. The

flat bar—even of double the ordinary thickness will be discarded on railroads of any considerable travel and business.

Sullivan, N. H. Railroad.

At the annual meeting of the stockholders, held at Charlestown, N. H., on the 20th inst., the following Board of Directors was chosen:—Henry Hubbard, Ashbel Hamlin, Charlestown, N. H.; Isaac Parker, Franklin Evans, Boston; Daniel White, Charlestown, Mass.; John W. Tappan, William H. Farwell, Claremont, N. H.

At a meeting of the directors, the Hon. Henry Hubbard was chosen President; George Olcott, Treasurer, and P. C. Freeman, clerk.

Profitable Stock.

It is said "that the Commonwealth owns at this time 10,441 shares in the stock of the Western railroad company, which entitles it to 1,323 shares of the *new stock*, worth \$11 20 per share, advance. This will be a handsome speculation on the part of the State."

Yet how many wise men predicted in the early days of this noble work, that its stock would never pay a dividend!

The Iron Mines of the Trenton Iron Co.

Mr. Peter Cooper has, we understand, purchased the Andover iron mines, the iron of which is of the best quality for railroads, and 60 acres of land for \$6000. We also understand that this company has it in contemplation to erect furnaces upon this property, and manufacture the pig iron for their extensive rolling mill at Trenton.

Increase of French Railway Traffic.

It appears that the total traffic receipts from the 1st of January to the 22d June, 1847, on the Paris and Orleans, amount to 4,575,456f.; corresponding period of 1846, 3,905,574f.; increase, 17·1 per cent.

The traffic receipts on the Paris and Rouen from 1st January to 19th June, 1847, amount to 4,254,889f.; corresponding period of 1846, 3,532,192f.; increase, 20·4 per cent. This great increase is the more remarkable as these lines have been opened for a period of four years. The amount of traffic since 1844 on these railways has increased above 60 per cent. The returns on the Northern line are about the same rate per mile as compared with those on the above lines at a corresponding period after their opening. These facts should have their full weight with the French government, and convince them of

the advantages to be derived from dealing in a liberal manner with such companies as the Paris and Lyons, Lyons and Avignon, and other lines of great importance to the prosperity of France.

It is difficult to tell where the increase of railway receipts is to cease—in densely populated countries.

Mexican Gulf Railroad Company.

The following correspondence is copied from the New Orleans Courier. It is quite an important announcement, and we hope it may prove correct.

"We are happy to acquaint our readers, says the Courier, that Mr. G. Musson, now in Europe, has succeeded in disposing of stock in the Mexican Gulf railroad company, to an amount sufficient to defray the expenses of carrying the road to its termination on the shores of the gulf, directly opposite Cat Island. The following letters show that the British steam packets will stop at Cat Island once a month."

ADMIRALTY, June 17, 1847.

I am commanded by my lords commissioners of the Admiralty to acquaint you that their lordships have ordered such a change of routes for the mail packets as will insure a monthly communication direct between England and New Orleans. I am, sir, your very obedient servant,

J. W. B. HAMILTON.

To G. MUSSON, 70 Picadilly.

70 PICADILLY, June 17, 1847.

Sir—I have received the letter you did me the honor to address me by order of the lords commissioners of the Admiralty, informing me that their lordships had ordered such a change of routes for the mail packets as will insure a monthly communication direct between England and New Orleans. Will you please to tender to their lordships my sincere thanks for the favor thus conferred on the merchants and traders of New Orleans, and on the Mexican Gulf railway company?

I am, sir, respectfully, your obedient servant,

G. MUSSON.

J. W. B. HAMILTON, Esq., Admiralty.

New York Water Works.

The New York express of Tuesday gives the following synopsis of the water commissioners report: The semi-annual report of the water commissioners has been published by order of the Board of Aldermen. Amount of funds received from the 1st of January to 1st of July, 1847, was \$35,809 85; the amounts paid out for the high bridge, \$19,350; protection walls, \$3,056 77; salaries to engineers, keepers, etc., \$5,327 08; miscellaneous repairs, \$1,688 25; sundries, \$101 99; damage to private property, \$3,199; taxes on aqueduct lands, \$137 59; legal business, \$331; damage to property in the city, \$650; total, \$33,041 68.

Total sum expended on the work through the agency of the commissioners, since January, 1835, is \$8,698,329 59. The commissioners have urged the contractors to forward the completion of the high bridge as soon as possible. Of the fifteen arches which carry the bridge, eleven of them are complete, and the remaining four in fair progress. Three of the unfinished arches make a span of 80 feet, and the other a span of 50 feet. The total length of the bridge will be 1475 feet, and the parapet walls already up, measure 900 feet. The contractors have promised to complete the work before the close of the present year. The cast iron water pipes for this bridge are to be furnished by Governor Kemble, of the West Point foundry, at \$52 per ton. Chollar, Sarger, & Dunham, of West Troy, were Mr. Kemble's competitors, but they charged \$54 75 per ton for their pipes. The claim of James A.

Munroe, Esq., for damage sustained by himself and family, by the aqueduct's passing near his residence, has been reduced by mutual consent from \$900 to \$650, and been settled.

Charges on the Schuylkill Canal and Reading Railroad.

The Pottsville Journal of Saturday last compares the rates of charge per ton on coal on the Schuylkill canal and Reading railroad as follows:

RAILROAD.

The charges by railroad on coal to Richmond, for New York and all places reached by canal boats,* are per ton,

To Manayunk, cash, 95	Phoenixville,	95
" Plymouth " 95	Reading	80
" Norristown " 95	Mohrsville.....	60
" Valley Forge " 95	Hamburg	40

BY CANAL.

To Schuylkill front, toll 54, freight 75	....	\$1 29
Manayunk toll, including back toll, 58, ft. 75, 1	33	
Plymouth, toll 54, freight 75	....	1 29
Norristown, toll 53, freight 70	....	1 23
Port Kennedy, do do	....	1 23
Valley Forge, do do	....	1 23
Phoenixville, toll 51, freight 60	....	1 11
Reading, toll 46, freight 50	....	96
Mohrsville, toll 46, freight 40	....	85
Hamburg, toll 32½, freight 35	....	67½

DIFFERENCE IN FAVOR OF RAILROAD.

To Richmond per ton, 22	Valley Forge.....	28
Manayunk	Phoenixville.....	16
Plymouth railroad.....	Reading.....	17
Norristown.....	Mohrsville.....	26
Port Kennedy.....	Hamburg	27½

* The railroad company allows a drawback of 20 per cent. from the rates upon all coal carried to New York, Wilmington, etc., where Schuylkill canal boats can run with safety. They also allow 12½ cents per ton for dumpages on all coal that has to be unloaded on their wharves at Richmond.

Gun Cotton.—Recent Experiments.

The gun cotton of C. & F. Lennig was tested yesterday, says the Ledger, at Harding's upper ferry, Schuylkill, with rifles, shot guns, and by using it for blasting rocks. About sixty discharges were made with Cardeza's patent rifle, made for firing with gun cotton, Krider's, and guns of other makers. The principal distance was at the distance of ninety-six yards, and the amount of cotton used in shooting, from three to seven grains. The gentlemen firing were good marksmen, and the result satisfactory. The blasting was done in hard Gneiss rock—the drill hole three feet nine inches deep, two inches in width, and the amount of cotton used five ounces. The explosion cracked off a mass of about ten feet in width, twelve feet in length, and ten feet in depth.

The experiments were conducted under the supervision of Professor Walter R. Johnson and Mr. Smith, committee of the Franklin Institute, and W. J. L. Kinderlin, Esq., editor of the Stadt Post. The result of the experiments and the conclusion of the committee and spectators were these: that gun cotton is superior to gunpowder for sporting purposes in its superior cleanliness, forty discharges not fouling a gun as much as one firing when loaded with gunpowder; in its entire freedom from smoke, which often prevents a second shot with a double barreled gun, and by the absence of recoil which frequently disturbs the aim for a second shot; in the quantity necessary for a load, being from four to eleven times stronger than gunpowder; and in its cheapness, being but one half the price of powder. The only drawback to its entire usefulness is, that it explodes so quickly that in some instances portions of it are driven from the gun unignited, and part of the explosive force is lost. Inquiry is now

turned to this matter, and we may suppose this defect will soon be remedied, and its entire explosive force brought into play. As an evidence of its swift ignition, we may mention that portions of it were several times placed loose upon gunpowder and fired, the combustion was so rapid, that although the entire mass of cotton exploded, the powder did not catch. For mining purposes it was universally conceded to be superior to powder—in its force and projectile force, and in the absence of smoke, which in mining with gunpowder sometimes prevents the resumption of labor for half an hour after the blast—with cotton not a minute is necessary. It may be conveniently used also for sloping and overhead blasts in holes which it would be impossible to introduce powder.

These experiments are certainly very satisfactory, and establish the reputation of the article prepared by the Messrs. Lennig; and also the fact that it is much more powerful than powder. It must also be admitted that it is a much more dangerous article to handle than powder, and therefore requires a proportionately greater degree of care in its use.

Baltimore and Ohio Railroad.

At a meeting of the directors of the Baltimore and Ohio Railroad Company, held at their office in Baltimore, on Friday, 16th of July, the following report was made to the committee on the extension of the road to the Ohio river, and adopted by a vote of 17 ayes to 5 nays:

The committee appointed by the president, under the authority of the Board, at their stated meeting on the 4th of April last, to confer with the authorities of the city of Wheeling, respecting modifications of the recent law of Virginia, relative to the right of way through the State, passed the 6th day of March, 1847.

REPORT.

That they promptly and diligently engaged in the duty confided to them. They proceeded to Wheeling, in company with the president, on the 29th of April, and while there had several conferences with a committee on the part of that city, and were also met at that place by several eminent gentlemen from Columbus, Zanesville, Steubenville, and St. Clairsville, in the State of Ohio, representing important sections of that State, having a deep interest and taking a lively concern in the extension of the Baltimore and Ohio railroad to the Ohio river, and who were deputed to make known the views and wishes of the people of the State represented by them as to the terminus on the Ohio river that would most certainly ensure the western connections with Zanesville, Columbus, and Cincinnati, and attract to the road the trade and travel from these points and the country connected with them.

During their conferences at Wheeling, it was discovered that, previously to concluding any arrangement upon the subject of their mission, it would be necessary to direct particular examinations of the several routes authorized by the present law to be made by the chief engineer of the company; and returning to Baltimore on the 7th of May, they despatched Mr. Latrobe upon that duty at as early a day as his engagements would permit him to be absent from the office. He proceeded to make the necessary examinations, and returned to this city on or about

the 26th of June, and immediately afterwards the committee on the part of Wheeling came to Baltimore and resumed the negotiations in which we had been previously engaged.

The examination of Mr. Lurobe, as far as it could be done without instrumental surveys, demonstrated to the satisfaction of the committee, that the cheapest route to *Wheeling*, through the State of Virginia, was that which proceeded by the ravine of *Fish creek* to the mouth of that stream on the Ohio, and thence by the banks of the Ohio to the city of *Wheeling*. According to his examinations, the route by the mouth of *Fish creek* proved to be less expensive to construct, maintain and work, than the route prescribed by the acts of 1844, 5, and 6, and rejected by the stockholders, by \$514,195, and cheaper than the route by *Grave creek*, referred to in the present law, by \$276,213—thus placing it at the option of *Wheeling*, by waiving her right to pay the difference in the expense of the second and last routes to permit the road to be constructed to that city by the mouth of *Fish creek*, only sixteen miles higher up the river than the mouth of *Fishing creek*, and twenty-eight miles below the city of *Wheeling*.

Your committee deemed it their duty, and as important to the interests of the stockholders, to insist upon the option of adopting that route, and of touching the Ohio river at the mouth of *Fish creek*, if they desired to do so, and they finally concluded an arrangement with the committee of the city of *Wheeling*, by which that right or option has been secured, and by which the city of *Wheeling*, moreover, agrees to subscribe to the stock of the company the sum of \$500,000 in money, or in bonds guaranteed by the State of Virginia, and also to provide the company, free of expense, a depot in the city, with the right of way through the city limits, and the use of the locomotive engines through the streets.

The arrangement thus concluded, is now submitted with this report; it has been already duly ratified by the authorities of *Wheeling*, and if the law be accepted by the stockholders of this company, will be binding upon that city. The committee are of opinion that by this arrangement and according to the present law, the company may secure all the substantial advantages they ever expected from a terminus of their road at a southern point on the Ohio, and at a cost not greater than those advantages would fully warrant.

The committee deem it proper to add, that unless the obligation it imposes of constructing the road to *Wheeling* could be deemed objectionable, which in the present posture of their affairs, and for the considerations they will hereafter advert to, they cannot admit, the present law of Virginia grants the right of way upon as favorable terms as any they have heretofore obtained, or could expect hereafter to obtain.

It does not require the company to adopt the route or any objectionable part of it, heretofore prescribed by the act of 1844-5 and 1845-6, and rejected by the stockholders, but gives them the option of at least three other

and different routes, considerably cheaper, and of seeking a terminus of their road at the mouth of *Fish creek*, only 16 miles higher up than the point heretofore preferred as the southern terminus on the Ohio. It releases them from all restrictions upon their tolls, in competition with the canal or other rival works, and in requiring the establishment of a depot at the canal basin on the Shenandoah and at *Cumberland*, it does little more than repeat the obligation to which the company is already subjected by the laws of Maryland, and which, on the Shenandoah, it has actually complied with. It does not impose upon the company any obligation to complete all parts of its road simultaneously; on the contrary, it imposes that obligation only in respect to the portion of the road west of the *Monongahela* river, and allows the privilege of resting at that river, or at any point east of it, during the term prescribed by the act. The committee are free to express it as their opinion, however, that if the company accept the law, they should not contemplate the necessity of using this privilege, but should, on the contrary, desire to press the work forward with all possible despatch, to its terminus or termini on the Ohio river. The committee, moreover, deem it important to add that, while the law in one of its sections guards against an implied renewal of the contract by the State of Virginia, to part of the construction of the road from *Harper's Ferry* to *Cumberland*, it leaves the contribution of 2-5ths of the cost of the extended road within the State, to the operation of the general laws and other policy of Virginia.

The committee have some reason to believe that this was not unintentional, and are not without much reliance upon the assurances and cordial co-operation of the interests of *Wheeling*, to procure from the State the usual proportion of 2 5ths of the cost of the extended road from the *Maryland State line* to that city. The committee conclude this part of their observations by stating that the agreement now concluded, obtains for the company all the advantages and concessions which the Board, as explained in the address of the president to the stockholders at their meeting on the 5th of April last, contemplated to insist upon.

If, then, the substantial advantages ever contemplated from a connection of the road at a southern point on the Ohio, may be expected from the termini at the mouth of *Fish creek* and at *Wheeling*, the company could not have demanded greater privileges in its extension and future working than this law confers.

That these advantages may be realized from the termini secured by the law, and the arrangement with *Wheeling*, the committee are equally well persuaded.

In prosecuting the road to the Ohio river, the committee have never doubted, that it was not more the primary intention and object of the company, than essential to the interests of the stockholders, and the trade and prosperity of this city, that it should terminate at such point south on the river as would most certainly secure the trade and

travel passing up the river, and, by early and favorable connections with the western improvements, avoid the hazard of rivalry and competition with our northern cities, attract the trade and travel of the great west upon their road, and bring them to Baltimore.

In the pursuit of these objects, it would be far more advisable to complete their work even at a much greater cost, to a point at which they would reach the trade and travel free from all competition, than to expend a comparatively less sum upon a work which would annually expose them to the loss of the principal advantages of the enterprise, and oblige them to maintain a competition, upon unequal terms, with formidable rivals.

The uniform history of the company shows that its aim has been to go far enough south on the Ohio to arrest the trade and travel passing up the river, to connect certainly and advantageously with the progressive improvements in the west, and to escape from the competitions with *New York* and *Philadelphia*. It would, therefore, be a departure from the uniform purpose of the company, and from the settled public opinion in this community for twenty years, if, neglecting this obvious policy and forecast, we could be content to expend millions of our capital, to attract the travel and trade from southern points at which they could be obtained without competition, and draw them to another point farther north, at which we would be compelled to engage in a close and powerful rivalry for a small share of either.

That point which would afford the greatest security for the river trade, and promises the earliest and surest connections with the western improvements, is the one to which the company should direct its attention and resources.

If not from the origin of the enterprise, as early, certainly, as 1835, the city of *Wheeling* had been preferred, and accordingly selected, by common consent, as the most suitable point to obtain those objects; and it is worthy of observation, that this preference was adopted and avowed when the principal dependence both for trade and travel was upon the river navigation and the National road, with little expectation of such an extension of railroad as has been since projected through the State of Ohio.

On these grounds *Wheeling* had been conclusively adopted by the terminus of the main stem of the road, even subject to the embarrassment and additional expense of making a branch to *Pittsburg*, as a bonus to the State of Pennsylvania for the privilege of passing through the territory of that State to the preferred southern point.

The application of the company to the Legislature of this State and to the City Council, for an increase of their subscription to the amount of \$3,000,000 each, represented *Wheeling* as the terminus of the main stem, and *Pittsburg* as a branch only, which could not be avoided: and the contributions, both on the part of the State and city, were made in the expectation that the road would be prosecuted, if practicable, in pursuance of that design. The same purpose was more

emphatically declared by the company, and affirmed by the Virginia Legislature in 1838, limiting in express terms the terminus of the main stem at Wheeling, and until the year 1843, the company never wavered or faltered in its purpose, or had reason to doubt the feasibility of its object. In that year, the law of Pennsylvania granting the use of its territory, expired, and that State refusing to renew the grant upon terms which the company could accept, and under an impression that there was no approach to the river at Wheeling without passing through Pennsylvania, the company was obliged to turn their attention to a point even farther south, and accordingly applied to the Legislature of Virginia for permission to select a terminus at any point not below the mouth of the Little Kehawha.

The first application for this purpose failed, chiefly for the want of time during a short session of the Legislature; and before the commencement of the following session, the engineer of *Wheeling* discovered a route to that city by which it was insisted that the road could be constructed without passing through the State of Pennsylvania; and that route, by a law of two successive sessions of the Virginia Legislature, was prescribed as the only condition upon which the right of way through that state would be renewed.

Each of these laws was rejected by the stockholders, and it being well understood that the objections to the route they prescribed were insuperable, the recent act of that State relaxed the conditions of the previous laws, and allowed the company an enlarged option in the selection of their route. In all the recent efforts of the company, therefore, to obtain the right of terminating their road lower down the Ohio, the motive did not so much proceed from an objection to the suitability and advantages of *Wheeling* as a terminus, as the route by which they were required to construct the road to that city.

It is not to be denied that when compelled, as already stated, to turn their attention to another terminus than *Wheeling*, the western improvements by railroad, which had been projected in the interim formed a necessary element in the calculations of the company; and they were, moreover, led to believe by the reconnoisances and reports of their engineer, that a more southern point offered even greater advantages as a terminus of the road, than the point previously preferred, and it must be stated that, so far as can be inferred from those reconnoisances and reports, the mouth of *Fishing Creek* or *Parkersburg*, was deemed by the engineer as the point better than any other adapted to the objects of the company. It may be admitted that this preference was in some respects well founded, though the committee do not hesitate to express it as their opinion, that subsequent information and a more thorough investigation of the subject, have shown that it was not entitled to the force that had been generally conceded to it.

The preference of the mouth of *Fishing Creek*, as a terminus of the main stem, was justified by the saving of distance, in refer-

ence to the western trade, compared with any other point on the river from the mouth of the Little Kanawha to Pittsburg inclusive, except the mouth of *Fish creek*; by the cheapness of construction over each of the other routes with the same exception, and by the greater facilities which, it was alleged, it afforded in forming connections with the projected improvements, on both lines, on the west side of the Ohio river. It is to be here observed that, both in cost and in distance, east of the Ohio, the road to the mouth of *Fish creek* would be the same as to the mouth of *Fishing creek*. It was particularly urged that from the mouth of *Fishing creek* connections with the Ohio works upon the central line through *Zanesville*, *Columbus*, and *Xenia*, to *Cincinnati*, could be formed with greater advantage than from any other point; and that with the southern line of improvements through *Marietta*, *Athens*, and *Chillicothe*, to *Cincinnati*, it was the only point, excepting *Parkersburg*, from which a connection could probably be made.

Without these advantages, *Fishing creek* would be entitled to no preference over any other point from which they might be obtained. Upon the ground of its superiority in these respects, real or supposed, the preference for *Fishing creek* has rested, and upon the same ground the stockholders, at their meeting on the 22d day of February last, declared their willingness and determination to accept a law which should oblige them to construct their road to *Wheeling*, if they could be allowed the privilege of constructing it to that city by the way of *Fishing creek*.

The committee, therefore, think, that if, from better investigation and more recent information, it appears that the same and even greater advantages which were expected from touching the river at the mouth of *Fishing creek* can be realized from the construction of the road, at no greater cost, to *Wheeling*, by the mouth of *Fish creek*, sixteen miles higher up, the present law is equally entitled to their acceptance.

It may be conceded, that the distance by the mouth of *Fishing creek*, with reference to the trade with *Cincinnati* would be less than by other points on the river, excepting *Parkersburg* north or south; and that the cost of constructing the road to that point would be less than to any other southern point excepting to the mouth of *Fish creek*; but the committee apprehended that neither distance nor cost, unless they are sufficiently great to obstruct the business of the road, or defeat the ability of the company to make the work, are points most deserving of consideration. If the cost be within the ability of the company, and the terminus such as to command the full amount of trade and travel, the elongation of the distance, so far from forming an objection, becomes a positive advantage, by increasing the profit upon a lengthened line of road.

Nor must it be forgotten that the object of extending the railroad to the Ohio river is not for the mere trade and travel of the point to which it may be extended; that is altogether a subordinate consideration.

The object of reaching the Ohio is to get within the proximity of the trade and travel of the great west beyond that river, and the point from which these can be most certainly secured is that to which the road should be carried.

The question, therefore, the committee repeat, is from what point the trade and travel of the river can be most certainly commanded, and with which the improvement west of the river could most advantageously connect.

It is to this consideration, and to the information they have acquired in relation to it that the committee would particularly invite the attention of the Board. Their investigation has developed facts and information which had not previously received sufficient attention, and has led the committee to the conclusion not only that the cost of the construction of the road to *Wheeling* will be little, if any, more than to the mouth of *Fishing creek* (and considerably less than to *Parkersburg*) the uniformly preferred routes, but that the advantages of connection with both lines of works in Ohio will be even greater and more certain of accomplishment, from the route authorized by the agreement with the city of *Wheeling*, than from a terminus at the mouth of *Fishing creek*.

There are two great lines on which the public works through the State of Ohio, intended to connect with *St. Louis* to the west, and north with the Lake country, and projected to the Ohio river.

One is called the Southern line, extending through *Chillicothe*, *Athens*, and *Marietta*, and the other is denominated the "Great Central line" leading from *Cincinnati* thro' *Xenia* or *Springfield*, *Columbus*, and *Zanesville*; and a terminus at *Fishing creek* was originally preferred as being equally suited to a connection with the works on both of these lines.

It may be conceded, that from that point a connection could be formed both at somewhat less cost and distance with the southern line than from *Wheeling*, or even the mouth of the *Fish creek*; and it is equally true that from *Parkersburg* the connection could be formed with even greater advantage than from *Fishing creek*, or any other point on the river. It is also true, however, that a connection with the southern line could be formed at little more expense, and with scarcely less advantage, from the mouth of *Fishing creek* than from that of *Fishing creek*.

Fish creek being only sixteen miles higher up the river than *Fishing creek*, and the elongation of a road over that distance costing not exceeding \$250,000, it is not to be doubted that the cities and counties interested in the southern line, would be quite ready to incur that expense in extending their works to the upper point. It may therefore be assumed as certain, that in procuring the option of going to the mouth of *Fish creek*, the company has as effectually secured an early connection with the southern line of improvements in Ohio as they would have done from *Fishing creek*, and that in this respect the object of the stockholders, as declared at their meeting on the 22d of February last, will be

fully accomplished. And it is perfectly certain, that with a point north of Wheeling, and even of Fish creek, a connection with the southern line of improvements, if a northern terminus were adopted, would be lost to the road altogether.

The committee, however, consider it even more important to state, that their recent investigations have shown that with the great central line of the Ohio improvements from Cincinnati through Columbus and Zanesville, already in a more advanced state, and with greater means of completion, a connection could not be advantageously made from the mouth of *Fishing creek*, and would be more promptly and certainly formed at *Wheeling* than at any other point north or south of the Ohio river.

The committee cannot doubt that this consideration must give a new and important aspect to the subject, and that it should have a controlling influence over the future decisions of the company.

On this ground, in reference to the central line of the Ohio improvements, the advantages of a terminus at *Wheeling* would be superior to those of *Fishing creek*; and, combined with the right of touching at the mouth of *Fishing creek*, the route authorized by the agreement with *Wheeling* would not be inferior to any other on the Ohio river.

The committee have already alluded to their conferences, while at *Wheeling*, with representatives attending from several parts of the State of Ohio, and they have now to add that, during their recent conference in this city, they were attended by Mr. Alfred Kelly as the representative from the city of Columbus.

Mr. Kelly's long and eminent connection with the construction and management of the public works of Ohio, is well known in this community; no man has been longer or more usefully engaged in those important improvements, or is more intimately acquainted with the topography and resources of that great State. He is at present at the head of one of the works upon the Central line, passing through Columbus, and designed to form part of the great west and east line from St. Louis, and was selected by the authorities of Columbus to attend the conferences between this company and *Wheeling*, and to speak authoritatively of those points on the Ohio river with which it would be consistent with the ability and interests of the Ohio improvements to connect.

A summary of Mr. Kelly's views upon these points is substantially embodied in two letters to the President, dated 2d and 5th of July instant, which the committee submit to the Board with this report, and which will be found remarkably to corroborate the statements both as to comparative routes and distances to the several points on the river, and in reference to the lake trade presented by the President to the stockholders of this company in his address to the stockholders of the 5th of April last.

They have also received the official proceedings of a convention of the several companies chartered to continue the line of rail-

ways from Columbus to the Ohio river, held at Zanesville on the 1st day of the present month, which they beg leave to submit with this report, as not only explanatory of the views and interests of those companies, but as illustrative of the resources of the State of Ohio, and as containing in the preamble and report of the committee, some interesting and valuable information of the utmost importance to the future course of this company. Besides these, the President and the committee have received various unofficial communications from numerous individuals of the first eminence and best practicable information, all concurring in the views expressed in the papers herewith submitted.

From all these sources, the information is uniform that, in conformity with the established policy and interests of the State of Ohio, *Wheeling* is a preferable point with which to connect the public works than any other north or south on the Ohio—the distance from Columbus to Pittsburg being more than seventy miles, and from Zanesville at least that number of miles greater than to *Wheeling* and the country through which a line of communication with the former would pass, offering fewer advantages, would seem to render a connection by the Central line, with Pittsburg, a matter of necessity, or dependent upon an amount of trade too great to be accommodated by other works. It would appear, also, that if the distance from Columbus and Zanesville to the mouth of *Fishing creek* be not greater, the intervening country, besides being unproductive and offering comparatively small means for the making or employment of a railroad, is not favorable to the construction of such a work, and these objections we deemed so strong as to authorize a distinct intimation that the termination of the Baltimore and Ohio railroad as low down as *Fishing creek*, might create the necessity of more northern lines, which, if a terminus at *Wheeling*, or near it, were adopted, would not be apprehended.

Mr. Kelly's letter shows that a continuous line of railway from Cincinnati to Columbus, a distance of 130 miles, will be soon completed, leaving only 155 miles to extend it to the Ohio.

The committee would add, that all the assurances and representations they have received, lead them to the conclusion that the counties of Ohio through which the line, in connection with a terminus opposite *Wheeling* would pass, are among the wealthiest in that State, and that, if this company determine to construct their road to *Wheeling*, and engage in the work earnestly and in good faith, the Ohio improvements from Columbus to *Wheeling*, will be completed as soon as this road can be extended to the river.

To be continued.

Susquehanna Railroad. Extension from York to Harrisburg.

Continued from page 471.

Some have asserted that nature has raised insurmountable barriers across the route of the Central road. The difficulties have been much exaggerated. From the reports of intelligent engineers, it appears that, by mak-

ing two tunnels of no extraordinary length, the mountains may be passed, and the whole road constructed, so that the maximum grade would never be more than 45 feet to the mile.

We have stated the estimated cost of the work, and the amount of stock already subscribed;—can the balance of the stock be taken? The committee have been assured that it will be; and they see no reason to doubt it. The distance from Cumberland to Pittsburg, by the southern or Savage river route of Baltimore and Ohio railroad (which seems now to be settled upon) is 178 miles, and the estimated cost \$4,383,070. The distance from Harrisburg to Pittsburg by the Central road is 228 miles, and the estimated cost \$7,000,000:—a difference of only 50 miles of distance, and \$2,616,030 of expense in the two undertakings. If we compare the population and wealth of the two States, it would seem that extension from Harrisburg is a much easier undertaking for Pennsylvania, than that from Cumberland is for Maryland. If Baltimore extends her road to Pittsburg, who can doubt for a moment, that Philadelphia will then (if she should delay until then) put forth her utmost energies to effect the completion of her central road? Can it be hoped that she will look on with a calm indifference while a rival city snatches away the rich treasures of the west,—the golden fleece which she herself had already spent so much toil and treasure to secure! It may be said that Philadelphia has already a canal communication with Pittsburg, which has cost an immense outlay, and that she will not be willing to expend millions more in making a railroad to the same point. Let it be remembered that the march of improvement is onward with daily increasing speed. Time is now emphatically regained as money. Merchants of different cities buy and sell by telegraph! The canal boat drawn by the sluggish mule can no longer successfully compete with the lightning speed of the steam driven car! The daily increasing passenger travel from the populous west would alone induce Philadelphia to undertake the construction of the Central road. Should Baltimore extend her road to Pittsburg, the necessity for hastening the completion of the Central road would be increased.

When the Central road is finished, the passenger travel between Baltimore and the west by way of the York and Cumberland railroad would certainly be very great. It would possess an advantage over the Baltimore and Ohio railroad in respect to relative distances, which would be as follows:

Ohio railroad, via Cumberland and the mouth of Savage river (southern route)	356 miles.
From Baltimore to Pittsburg by way of the York and Cumberland railroad, and Central road of Pennsylvania....	316 "
From Philadelphia to Pittsburg by Central road.....	334 "

It will thus be seen that, by the Harrisburg route, Baltimore would be 40 miles nearer to Pittsburg than by the Cumberland and Savage river route. She would also be 18½ miles nearer than Philadelphia. If the northern and Castleman's river route be

adopted by the Baltimore and Ohio railroad company, the difference in distance of the two routes from Baltimore would not be so great; but it would still be in favor of the York and Harrisburg route. These advantages could not fail to attract a large portion of western trade and travel to this road.

The committee do not wish to be understood as opposing a connexion between Baltimore and Pittsburg by means of the Baltimore and Ohio railroad. As Baltimoreans, they earnestly desire to see that great work extended to the banks of the Ohio river, its only profitable terminus. Whether Pittsburg, or a more southern point, should be chosen for the connexion, they leave to be determined by those having the management of the affairs of that corporation. If the connexion be made at Pittsburg, it would not necessarily follow that the interests of that work and of the York and Cumberland road would be conflicting. If we regard the rapid and daily increase of the western states in wealth and population, and estimate from their past progress what will be their future greatness, we will find that, in a few years, the business of that wonderful region will furnish an amount of freight and travel sufficient to give constant and profitable employment to both works. In 1810 the population of the Mississippi valley was 1,064,703. In 1840 it had reached 5,335,578. By the same ratio of increase, in 1870 (within twenty-three years,) it will be 26,000,000! Some idea may be formed of the value of the agricultural products of this region from the estimates furnished in the report of the commissioner of patents for the year 1845, by which it appears that, besides other staples, the corn crop alone for that year amounted to 273,384,000 bushels, and the wheat crop to 55,384,000 bushels. A considerable amount of these products is sent annually to the Atlantic cities for foreign exportation. Increase of facilities produces an increase of trade. If greater facilities of internal communication were offered, and the expenses of transportation thereby lessened, how much greater an amount of western productions would annually pass the Alleghenies: And which of all the cities of the sea board is more advantageously located for the western trade than Baltimore? Nature has done much for her. It only remains for her citizens to appreciate her advantages and to improve them. Human art and enterprise may perfect what nature has done; and the monumental city may secure to herself the larger portion of the trade of a region able at all times, from its surplus products, to supply the starving millions of Europe with food!

The committee, therefore, think that both connexions with the Ohio might very properly be made. The construction of the York and Cumberland road would cost a comparatively small sum. This can be spared from Maryland and Pennsylvania capital, and an abundance of means left for the completion of the Baltimore and Ohio railroad.

In conclusion of this part of their report, the committee would recapitulate the follow-

ing important items from which the profits of this road might be expected to arise:

1. *The Produce Trade of Western and Southern Pennsylvania.*—The amount of this trade would be large, and its nearest market Baltimore.

2. *The Lumber Trade.*—This road would bring Baltimore in direct communication with the pine forests of the Upper Susquehanna, and with Middletown, the greatest lumber market in the southern or middle states.

3. *The Iron and Coal Trade.*—The anthracite and bituminous coal basins of Dauphin county would soon supply this road with a trade which of itself would render it a profitable investment. From the great difference in the cost of fuel upon the two routes, coal could be carried at much less expense upon this than upon the Reading railroad.

4. *The Passenger Travel in Western Pennsylvania.*—This road would furnish the shortest and cheapest route to Washington for three-fourths of the counties of Pennsylvania, and to many of the southern counties of New York, containing together a population amounting to two millions. Passengers could leave Harrisburg at 4 o'clock in the morning, reach Baltimore in time for breakfast, and thence proceed to Washington, where they could arrive by 11 o'clock.

5. *The Freight and Passenger Travel of the West.*—When the Central road is finished this must be very great. This road will possess advantages which will enable it to compete successfully for this trade with any other work.

III.—ADVANTAGES TO RESULT TO BALTIMORE AND MARYLAND FROM ITS CONSTRUCTION.

The Baltimore and Susquehanna railroad extends from Baltimore to the Maryland line, and thence, by means of the York and Maryland line railroad, to the borough of York, a distance of 58 miles. In this work the State of Maryland has invested \$1,884,054.25—besides large arrearages of interest due from the company, and Baltimore city \$850,000. Nearly every ton of freight and every passenger passing over the York and Cumberland railroad, would also pass over this road. The former would be about 29 miles in length. The trade of the York and Cumberland railroad would thus swell the receipts of the Baltimore and Susquehanna road, and would soon render profitable the large investments of our State in that work—and eventually enable the company to make dividends to the city and private stockholders. Another result even more important would be the creation of a new and valuable trade for our city, affording employment for her capital, a field for the enterprise of her merchants, and a strong and lasting impetus to her growth and prosperity.

Nor would the advantages arising from this work result solely to our own State. Pennsylvania is equally interested in its completion. By this means, the citizens of many of her congressional districts will be benefitted by having a nearer and cheaper route to the National Capitol and other southern

cities. Thousands of the farmers of her interior counties would find their lands increased in value from the increased convenience for sending their crops to the Atlantic seaboard. Coal fields and mineral lands now neglected and valueless, would be opened and give wealth to their possessors. Thus, while no part of the State would be injured, thousands of her citizens would receive important benefits from this proposed connection with our city—a work which would create business for itself, by producing a new trade and increased travel.

The committee therefore think, that the agricultural interests of Pennsylvania and the commercial interests of Baltimore, would alike be promoted by the construction of the York and Cumberland railroad. They also believe that it would be a profitable investment for capitalists.

The committee have thus endeavored to discharge the duty imposed upon them. It will be for the Board to take such action upon the subject of this report as to its members may seem proper.

COLEMAN YELLOT,
R. M. MAGRAW,
WILLIAM P. PODER,

Committee.

The above report was read at a meeting of the Board of Directors of the Baltimore and Susquehanna railroad company, on the 17th of June, 1847: and, on motion was adopted and ordered to be printed.

Lehigh Coal and Navigation Company.
Report of the Board of Managers of the Lehigh Coal and Navigation Company, to the Stockholders.—May 4, 1847.

At an election held May 4, 1847, the following named persons were chosen officers of the Lehigh Coal and Navigation Company, for the ensuing year:

President—James Cox.

Managers—John Cox, Josiah White, Erskine Hazard, Henry Cope, Caleb Cope, George Abbott, Joseph Fisher, John Farnum, Henry J. Boller, John Brock.

Treasurer—Otis Ammidon.

Secretary—Edwin Walter.

REPORT.

In compliance with the requirements of law, and in the performance of a duty, which, from the greatly improved condition of the company's affairs, is discharged with even more than the usual alacrity, the Board of Managers have the pleasure to submit to the Stockholders, the following report "on the situation of the concerns committed to their charge."

Shipments of coal for the year 1846 began on the 1st of April of that year; but, in consequence of the injury to the Delaware Division from high water, deliveries were, until the 24th of that month, restricted to the line of the Lehigh.

From the commencement until the close, on the 10th of December last, of operations on the company's canal, there was no interruption, from any cause whatever to the navigation.

Owing to causes, some of which could neither be foreseen nor provided against, and all of which were, more or less, beyond the

control of the managers, the production of coal from the coal mines fell short, not merely of the anticipations indulged in at the opening of the season, but of the quantity sent to market during the preceding year.

This deficiency was, however, more than compensated by the increase from the Room Run mines.

The shipments for the year were as follows:

	Tons.
From the old mines of the company	165,011
" Room Run "	109,652
Making a total from the Co.'s mines of	274,663
From the Beaver Meadow "	85,948
" Hazleton "	98,541
" Buck Mountain "	46,116
" Summit Coal "	11,868
" Wyoming Valley via W. Haven. "	5,866

Forming an aggregate of coal shipped on the Lehigh canal of 523,002 And exhibiting an increase of 93,510 tons, or about 21½ per cent. on the shipments of the preceding year.

In addition to the above, there were sent to market during the year 1846, from the company's Tamaqua mines, via the Little Schuylkill railroad, 10,150 tons of coal. The whole quantity taken from them since they were opened is 26,839 tons.

These mines are now leased to parties, and upon terms that promise a large annual increase.

The quantity of lumber transported through the season, reached twenty-seven millions of feet, board measure, showing an excess of five millions of feet over the shipments for 1845.

The quantity and descriptions of freight, carried on the canal during the year 1846, and upon which the tolls amounted to \$250, 849 41, are exhibited by the following statement:

LIST OF FREIGHT, 1846.

	ASCENDING.	DESCENDING.	TOTAL.
	Tons cwt.	Tons cwt.	Tons cwt.
Charcoal.....		1,031 16	1,031 16
Coal.....	142 0	523,002 5	523,144 14
Grain.....	744 17	1,664 11	2,409 8
Flour.....	873 6	6,559 00	7,432 6
Salt.....	745 1		745 1
Salt fish, beef & pk.	544 18	67 8	613 6
Other provisions..	107 4	17 12	124 16
Beer, porter & cider	18 5		18 5
Whiskey.....	113 19	572 2	686 1
Hay and straw....	256 7	1 00	257 7
Lumber.....	841 15	26,793 1	27,634 16
Cordwood.....	124 2	1,507 10	1,630 12
Bricks.....	1,775 5		1,775 5
Slate.....	2 00	270 1	272 1
Lime & limestone	5,904 12	12,984 00	18,888 12
Otherstone & plaster	2,398 17	1,314 1	3,712 18
Iron.....	2,342 1	18,888 18	21,230 19
Iron ore.....	17,011 13	10,393 2	27,404 15
Pitch, tar, rosin, etc	28 18		28 18
Merchandise.....	3,885 19	469 8	4,355 7
	37,861 8	605,534 15	643,396 3

As has been the case for several years past the coal from the company's mines, except the reserve to meet the demands of holders of the mortgage loan, was disposed of, and payment received as it reached market.

The navigation, both of the upper and of the lower section, is now in a condition as regards repairs, efficiency and security, better than it has been at any former period.

This desirable state of the line has been

effected by unremitting attention to graveling the dams, and by making such improvements for the sake of increased strength and stability, as experience dictated, and the means at the disposal of the managers warranted.

A portion of the work done may fairly be considered as a mere carrying out of the original design; the expense of which might, therefore, with propriety, have been carried to the account of construction; but, from a desire not to swell the cost of the work, it has been deemed expedient to charge the whole to profit and loss.

From the statement this day submitted, it is seen that a beginning has been made in the transportation of coal over the Lehigh and Susquehanna railroad; and there is good ground, in preparations made and contracts entered into, for the confident expectation that not merely will there be, during the current season, a large increase in the quantity of coal passing over the road, but that bar iron and lumber, to a considerable amount, will seek a market by this route; while iron ore and merchandize will furnish a return freight.

In fact, the managers are sanguine as to the extent of the business over the road being such, as with the means at their disposal, will justify them in affording for the year 1848, increased facilities for the transportation and shipment of commodities.

The production of coal from the company's mines, including the Old and the Room Run mines, will for the current year, probably not fall short of 350,000 tons; and may, under favorable circumstances, considerably exceed this quantity; while the aggregate shipments of this mineral on the Lehigh will not, it is supposed, be to a less amount than 650,000 tons.

The improvements, begun within the last few years, and forming part of a connected, extended, and as it is believed, of a well devised system for the steady and progressive enlargement of the company's business, are regularly carried forward to completion; but it is not expected that the benefit, to arise from them, will begin to be fully realized prior to the year 1848. Some of the tunnels will, however, contribute materially to the present season's supply of coal.

The Return Track, under all the disadvantages and disappointments usually attendant upon the first essay of a new work, has proved its capabilities; and will doubtless afford, during the present year, facilities which could in no other way have been so well or so cheaply secured.

In the meantime, the outlay for tunnels, slopes, uncoverings, roads, engines, machinery, dwellings, boats and cars, has unavoidably been very large; and, although the company's property has been proportionably improved by the expenditure, yet it has necessarily abstracted from the means applicable to other purposes.

Notwithstanding this heavy outlay during the year 1846, the managers have felt themselves warranted, since the commencement of the present year, in directing the resumption of the payment, in cash, of the interest on the mortgage loan; and have also made a begin-

ning of the discharge, in coal, of 25 per cent. of the arrears of interest on the common loan.

These measures, so important for the gradual restoration of the credit of the company, although not carried out at a date so early as was desired, were yet adopted at the very earliest period deemed prudent, or even practicable. Preliminary to their adoption, and within the year 1846, there had been extinguished \$161,000 of debt preferred under the deed of trust; much of it bearing the character of a first lien upon the company's property.

Since the date of the last report, three large anthracite furnaces have been added to those at that time upon the line of the company's works, and there is a prospect that the number will soon be still further increased.

Much is expected from the recent change in the organization of the Morris canal company.

Communicating, as this canal does, at one extremity, with the city of New York, and at the other with the Lehigh canal, at Easton; thus bringing Mauch Chunk within 150 miles of the largest market for anthracite on the Atlantic border; and with an undoubted and an abundant supply of water; all that is wanted, in order to command for the canal a very large through trade, is such an improvement of the planes, and of their machinery, as shall enable the coal scows of the Lehigh to pass, without detaching the sections of which those scows are composed.

This improvement, there is reason to hope, may be effected in time to accommodate the business of 1848.

Even in its present imperfect condition, the line of canal afforded, during the year 1846, a market for more than 50,000 tons of coal; a tonnage, however, which would prove to be but a tythe of what would pass over the canal, were the improvements, of which it is unquestionably susceptible, carried out.

There is ground, too, for the confident expectation, that, during the present year, the long delayed connexion between the Delaware division and the navigable feeder of the Delaware and Raritan canal, will be accomplished.

With these augmented facilities for reaching market, the trade of the Lehigh must, in future seasons, experience a very sensible stimulus, and a corresponding enlargement.

If we now pause for a moment, to look back upon the difficulties with which the company has had to contend—if we advert to the imminent perils to which it has been exposed—if we contrast its situation, almost desperate, and by many despaired of, with its present condition of renovated commercial credit, its more than restored navigation, its nearly completed railroad to the teeming valley of the Susquehanna, its vastly improved and enhanced property, and its consequent and constantly growing ability to relieve itself from the mass of indebtedness under which it has so long struggled,—and if we then turn to the contemplation of the augmented market value of all its obligations, and the comparative ease and security of its present position, it will be apparent to all

that the company possesses within itself restorative powers and available resources, to an extent heretofore scarcely suspected, and only now just beginning to be clearly and fully appreciated.

Whatever credit the managers may be considered as fairly entitled to for the altered circumstances of the company, they have, at least, the satisfaction of knowing that they have not been wanting in fidelity to the trust reposed in them; and they enjoy the high gratification derived from the consciousness that, in promoting interests identical with their own, they have contributed something to the relief and to the comforts of the many individuals who have invested their means in the stock and loans of the company.

To the statements of accounts this day submitted to the stockholders, and the most interesting and important of which will, with the approval of this meeting, be appended to the printed copies of the report, reference is made for a condensed exhibit of the results of the past year's business, and for a clear exposition of the financial position of the company at the close of that year.

By order of the Board of managers,
JAMES COX, President.
Philadelphia, April 28th, 1847.

*From the American Mining Journal and Railroad Gazette.
Progress at the Mines on Lake Superior.*

We are again without returns from the several mines on Lake Superior, and again repeat our earnest request to our friends in that quarter, to give us authentic information as to the work and results at their respective mines. The question is constantly put to us, "What news from the mines on Lake Superior?"—and we must confess, as the publishers of a Mining Journal, and with the knowledge, too, that much interesting and valuable information could be easily furnished with a little attention to the subject on the part of those interested, we feel placed in rather an unpleasant position. In the absence of any returns, we have availed ourselves of information kindly furnished us by Captain A. Sherman, a gentleman who has spent a considerable time for the last two or three years in the examination of the mineral region of the country bordering on Lake Superior. Capt. Sherman has visited most of the mines on Point Keewena, since the 1st of May, and at our request has given a minute of the information he obtained from actual observation at the mines he visited, and such information as he received from reliable sources. Some important mines he did not visit, and has given no information respecting them.

Lac La Belle.—The work at this mine has been prosecuted with vigor, with a force of from 10 to 15 men. A considerable portion of the labor has been expended in the preparations necessary for the opening of the mine. The quantity of ore raised is, in all, about 400 tons; 50 tons of which are very rich grey sulphuret, estimated to contain from 50 to 70 per cent. of copper. Messrs. Wm. H. Ladd and R. Kernick are erecting smelting works at this mine, which will be in operation by August 15th.

Bohemian.—The force employed at this

mine has been much less than at Lac la Belle. The vein is supposed to be a continuation of the Lac la Belle vein. Several tons of ore have been raised of quality similar to Lac la Belle. The prospect at this mine is very flattering.

Gratiot.—A very rich vein of grey sulphuret has been recently discovered, of great promise. Thus far, the indications appear better if possible than either the Lac la Belle or Bohemian, both of which are in the immediate vicinity and on the same mineral range. The vein was discovered in May last.

Eagle Harbor.—About 15 men have been employed at this mine during the winter.—The rock has been excavated along the vein, and from 20 to 30 tons of vein stone of at least 60 per cent. copper, can be taken down without further blasting. A considerable portion of the labor at this mine has been employed in a rigid examination of the several veins upon the mineral location on which this mine is situated. Some of the veins examined are very promising.

Copper Falls.—The main shaft is down about 120 feet. An adit is being driven from the level of the water course to intersect the main shaft. This adit is driven along the course of the vein. It is estimated the copper obtained from the vein will more than pay the expense of the adit. The large block of native copper in the shaft has been cut into pieces of from two to three tons each most of which have been raised from the mine. Four shafts have been sunk, and several drifts driven. The amount of vein stone containing copper, and of native copper raised, exceeds 400 tons, estimated to contain an average of 40 per cent. of copper.

Eagle River.—But few hands, not exceeding 10, have been employed at this mine during the winter. The labor has been expended mostly in one of the drifts from which a little more than 11 tons of pure native copper had been raised to May 20th. This drift is 120 feet below the bed of Eagle river, and runs from the shaft in which the boulder of pure native silver, weighing 6 lbs. 10 ozs. avoirdupois, was found. This drift is along a fissure or rather a series of fissures in the rock, which are filled with gravel similar to that found in the bed of the stream above. In this gravel, boulders and pebbles of native copper are found, shaped like the rock pebbles in many instances, and varying in size from a pea to a pumpkin. Pebbles of pure native silver are also found in this gravel. The 11 tons of copper named above consist of these copper boulders and pebbles, and is perfectly pure copper.

North Western.—The force at this mine during the winter was small, and a considerable portion of it was expended in erecting buildings, and other necessary preparations for mining. The main shaft is down to a considerable depth, and a large quantity of vein stone, containing native copper, had been raised to May 30th. The quantity of copper was estimated at over 10 tons. The prospect at this mine is very promising.

Cliff Mine.—The main shaft is down 200

feet upon the vein. The lode at the bottom of the shaft is increasing in width. The vein is about four feet wide, and increasing in richness. Drifts have been driven from the main shaft in the direction of the vein. In one of these drifts a sheet of native copper has been found extending 38 feet along the vein, about 10 feet high, and estimated as averaging 14 inches thick. Large masses of native copper, weighing from two to four and five tons, have been found in the other drifts. The lode at the top of the bluff and along the upper part of the vein is from 14 to 16 inches wide, and at the bottom of the main shaft is about three feet wide. The lode through the whole vein contains more or less native copper disseminating through the vein stone. About 100 tons of masses of native copper are now on the way to market. Mr. Sherman saw a large quantity of native copper from this mine on the lake shore ready for shipment, and from 30 to 40 tons on the wharf at the Sault de St. Marie.

North American.—This mine has been under the able management of Judge Bacon, and the labor has been expended to as good, if not better advantage, than any other mine on the lake. Several shafts were sunk, and drifts driven during the last year, without the success anticipated. Two rich veins have been recently discovered of great promise. From one of these large masses of native copper superb specimens of native silver have been raised.

North West.—Several shafts have been sunk, and drifts driven along the vein. A large quantity of vein stone, containing native copper, has been raised. The vein increases in richness as it descends. The quantity of copper raised during the winter is estimated as more than sufficient to pay the expenses of the mine.

Algonquin.—From four to six miners have been at work at this mine during the winter. The main shaft on the vein is down about 30 feet, and a drift along the vein has been driven about 30 feet. About 40 to 45 tons of vein stone, containing copper, estimated at an average of 30 per cent. copper, has been raised, and about one half of it transported to the lake. The lode fills the vein entirely, and is about 30 to 35 inches wide.

Isle Royal.—Several discoveries have been made on this island by various companies; some of the mines belonging to the American Exploring company, and the Franklin company, are very promising and valuable. Mr. Whittlesey, agent of the Union company; Mr. Talbot, on the northeast end of the island; Mr. Huganon, near Washington Harbor, and the agent of the Ohio and the Isle Royal company, have sent about 50 workmen, with a steam engine and other apparatus, to erect extensive smelting works upon the island, near Rock Harbor. The prospect at the mines upon the island is quite flattering, and appearances indicate that all those discovered are very valuable.

Amigdaloig Island.—The mines discovered upon this island by the American Exploring and Mining company, and the Franklin company, are of great promise. At two of

the mines, the companies above named are commencing operations.

Prince's.—The accounts of large quantities of silver being found at this mine, are confirmed by subsequent reports in some degree, but not to the extent at first reported. A considerable quantity of silver has been found, but to what extent is not officially reported.

Bruce.—This mine continues to astonish all who visit it, with the rich display of copper ore. Large shipments of ore have been made, and the miners are busy at work, quarrying out immense quantities of ore. The value of this mine, judging from appearances thus far, is very great; and, taking all things into consideration, is probably the most valuable on Lake Superior.

Importance of Mineral Analysis in the Smelting of Iron.

Mr. S. B. Rogers, in a recent number of the London Mining Journal, communicates some very important data relative to the subject at the head of this article. It has been said that "the province of an assayer is exceedingly limited—he merely having to assay a stone for lead, copper, silver, or any other metal,—and there the knowledge of its contents is ended, so far as the assay is concerned." This remark is equally applicable to the examination of the ores of iron by assay. The assayer may approximate pretty nearly to the quantity of iron each ore may contain; but as to their residuum no information whatever, is generally given,—though in the smelting of iron a knowledge of such residuum, both as to nature and quantity, is of the greatest importance.

Mr. Rogers has often urged upon the attention of iron masters the many advantages that would arise from the due analysis of all the materials used in the smelting furnace. The aggregate loss of iron at large works—many thousands of tons annually!—in consequence of no attention being paid to the proper preparation of furnace mixtures, as analysis would clearly point out, would astonish those persons who may be unacquainted with the irregularities of iron furnaces under the present system, or rather non-system, of management; and it is nothing but the immense capital employed at such works that enables the proprietors of them to proceed with their operations over the drawbacks above stated, with comparative success and satisfaction.

The data to which we have referred, and which is given below, is from a work of Mr. Rogers, written some thirty years since, for the purpose of showing that analysis is, alone, in a manner, the sheet anchor of an iron smelter; for without a due and correct knowledge of the elementary constituents of his materials, and of their action and re-action in the furnace, it is impossible for him to anticipate the production of any result whatever, except as a mere matter of chance.

Data, 2d Letter.—It may here be necessary to observe that, for the guidance of blast furnace managers, a correct analysis should, at all iron works, be made of the mines, and also of the limestones or other fluxes employed, and likewise of the coke and its ashes, in

order to show the amount, number, and proportions of the earthly matters therein contained; for, unless an operative manager be made fully acquainted with the earths and oxides upon which he has to work, all his efforts will, at best, be built upon conjecture, and his results entirely the effect of chance."

"The earthly matters of the ore can only be ascertained by analysis; it is, therefore, quite impossible to give data on this head to suit, not only for any two works, but for even a single work, that could be depended upon for a whole twelve-month together; repeated analysis of the iron making materials at each separate iron work should, therefore, be made whenever the slightest alteration appears in their quality."

3d Letter.—"A furnace manager, who is generally restricted to the use of limestone for the fusion of his materials, will have to apportion that flux in his charges, to correspond with the amount and nature of the earthly matters of his mines and fuel, and which 'amount' and 'nature' can only be known by analysis."—"The results of hundreds of analysis has convinced me, that no two strata of limestone, enclosing the coal field of Monmouthshire and South Wales, are exactly alike—indeed, stones worked out of the same stratum or bed, seldom continue of the same quality for a year round. Here, again, the smelter can only safely find his way by means of analysis—all else will be mere guess-work, and, therefore quackery, from following which, countless thousands in value of money and material have been totally lost, both to iron masters and the country at large."

4th Letter.—"To remedy this evil—i. e., the use of an inadequate flux for bringing the earthly residuum of the materials used in blast furnaces into perfect fusion without the addition of protoxide of iron—there is no other possibly safe and certain road for him to pursue than to repeatedly refer to the components of the materials upon which he (the furnace manager) may have to operate, and that by analysis only; all other modes of proceeding will be merely guess-work, and, therefore, alike uncertain and unsafe."

7th Letter.—"Now, with regard to the analysis of materials for the use of the iron smelter (and without which analysis all his processes will be pursued in the dark,) the contents of his mines, limestones, coke ashes, and auxiliary fluxes—all in the state in which they are put into the furnace—should be correctly ascertained and duly tabulated for ready reference to at any time."

8th Letter.—"By the smelter obtaining a proper analysis of his materials, and by attending to the principle I have endeavored to enforce—i. e., to assort his mines and fluxes, so that the residuary earths shall readily fuse at the usual temperature of his blast furnace, into a clear and colorless glass, or cinder, without the aid of protoxide of iron—any furnace manager may regulate his process so as, at all times, to obtain whatever iron result he may desire. This has always been termed an impossibility—at least, by all the smelters of what may now be termed the old

school—and very probably it will continue to be so considered, until the iron masters will, as a body, hold out sufficient inducements to tempt individuals to properly qualify themselves, by a due course of education, for the important and responsible situation of blast furnace managers."

Smelting Copper Ores by Electricity, again.

We have published several descriptions of the new method of smelting copper ores by electricity. We have yet another to give. It is a French invention, by M. M. Dechaud and M. Gaultier de Claubry. These gentlemen had long been engaged on the effect of weak electrical currents on copper ores; and the following is an account of the results at which they had arrived before taking out their patent. The process consists of two operations—viz: roasting the ore, and the precipitation of the copper. The roasting is effected in a reverberatory furnace, either by conversion of the sulphuret into sulphate by the action of the air, or in the transformation of the oxide of copper into sulphate, by calcining it with sulphate of iron, at a dull red heat in a current of air—the iron being left in a state of peroxide. Washing, then, extracts the sulphate of copper—so that the most impure minerals will afford copper equally pure with the carbonate or oxides. In the precipitation by galvanism, batteries would be far too costly; and they have obtained the same results without the use of exterior batteries. The principle is as follows:—If two solutions are placed one over the other, one of sulphate of copper very dense, and the other sulphate of iron less dense, and in the first is placed a plate of metal, and in the second, a fragment of cast iron, and then unite these two metals by a conductor, the precipitation of copper commences at once, and is completed in a long or short period, according to the temperature, the concentration of the liquids, and the extent of metallic surfaces—the state of the copper becomes greatly changed as the liquor becomes weaker. To obviate this, they take advantage of the following phenomena: After some minutes' action, there exists four strata in the liquids; at the bottom is a dense solution of sulphate of copper, then a less dense solution of the same salt; next, a sulphate of iron, and on the surface a less dense solution of the same. If, therefore, we arrange at the level of each of these liquids suitable apertures for the addition or the removal of the liquid, they can be kept at a uniform state of density, and thus the copper is always pure, and in the same physical condition.

For convenience, the liquids are now arranged in vertical, instead of horizontal layers; they are now to be separated by a diaphragm very permeable to electricity, but not to liquids—pasteboard answers perfectly well for this, and lasts for months. The apparatus is then arranged as follows: A chest of wood, lined with lead or some suitable material, contains the solution of sulphate of iron; into this chest a number of cases are plunged, made of a frame having its ends and bottoms formed of iron plates coated with lead, the

sides being of pasteboard. The strong solution of sulphate of copper enters through a pipe near the bottom, and escapes in its weak state through an opening at the top; in each case is placed a sheet of leaded iron, and between each are plates of cast iron; separate rods connect each plate with the common conductor, which is supported over the apparatus, and the copper is precipitated on both sides of the sheet of metal, the pasteboard preventing the immediate contact of the two liquids; the sulphate of iron thus floats above the sulphate of copper, and the apparatus fulfills all that is required. At a temperature of 680 Fah. 1073 feet of surface will receive 15,444 grs. of copper in 24 hours, perfectly pure, and immediately fit for hammering or passing through the rolling mill. This manufacture of copper presents no difficulties, requires no refining, and gives no scoria. The patentees consider that as a metallurgical result, 50 per cent. of the copper is obtained in sheets; 25 per cent. in fragments which require fusion; and 25 per cent. of powder requiring subsequent refining. The application of galvanism to smelting appears to be reduced to the simplest form, and electrolytes on the largest scale can be obtained.

—Am. Mining Journal.

ATLANTIC AND ST. LAWRENCE RAILROAD.—Notice to Contractors.—Proposals in writing will be received at the office of the Atlantic and St. Lawrence Railroad Company, in the city of Portland, until Tuesday, the tenth day of August next, inclusive, at sunset, for the grading, masonry, and bridging of that portion of their road extending from the termination of the second division near the hotel road in Danville, to a place in the vicinity of Norway and Paris cape, a distance of about 20 miles.

Maps, profiles, and specifications will be ready for examination on and after the second day of August next, at the Engineer's office in Portland, where all necessary information will be given.

The company will require, as one of the stipulations of the contract, that the heavier work on any section, shall be first attended to, so that the heavier and lighter work may be completed at nearly the same time.

Persons unknown to the officers of the company must accompany their bids with satisfactory evidence of their ability to execute the work. In all cases good and sufficient bonds with two or more sureties will be required for the faithful performance and fulfillment of the contract.

W. M. P. PREBLE, President.

Portland, June 30, 1847.

3028

MICHIGAN CENTRAL RAILROAD.—NOTICE TO CONTRACTORS.—Proposals will be received by the Subscriber until the 1st of August next, for the Grading of that portion of the Michigan Central Railroad lying between Antwerp and New Buffalo, a distance of 60 miles.

Profiles and specifications will be ready for examination after the 15th day of July next, at the office of the subscriber, or that of Col. J. M. Berrien, at Kalamazoo, at which time the line will be shown to contractors.

J. W. BROOKS, Supt.

Michigan Central Railroad Office,
Detroit, June 17, 1847.

A. & G. RALSTON & CO., NO. 4
A. South Front St., Philadelphia, Pa.
Have now on hand, for sale, Railroad Iron, viz.: 180 tons 2 $\frac{1}{4}$ x $\frac{1}{4}$ inch Flat Punched Rails, 20 ft. long. 25 " 2 $\frac{1}{4}$ x $\frac{1}{4}$ " Flange Iron Rails. 75 " 1 x $\frac{1}{4}$ " Flat Punched Bars for Drafts in Mines. A full assortment of Railroad Spikes, Boat and Ship Spikes. They are prepared to execute orders for every description of Railroad Iron and Fixtures.

PATENT RAILROAD, SHIP AND BOAT SPIKES. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 12 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janiers, Baltimore; Degrard & Smith, Boston.

* * Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

Ja45

MANUFACTURE OF PATENT WIRE ROPE AND CABLES FOR INCLINED PLANES, STANDING SHIP RIGGING, MINES, CRANES, TILLERS ETC., BY

JOHN A. ROEBLING, Civil Engineer, Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition.

2v191y

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN RAILROADS, RAILROAD DIRECTORS AND MANAGERS are respectfully invited to examine an improved Spark-Arrester recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckly & Drury, Boston, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

* * The letters in the figures refer to the article given in the Journal of June, 1844.



PATENT HAMMERED RAILROAD, SHIP AND BOAT SPIKES. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed.

JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston.

ja45

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

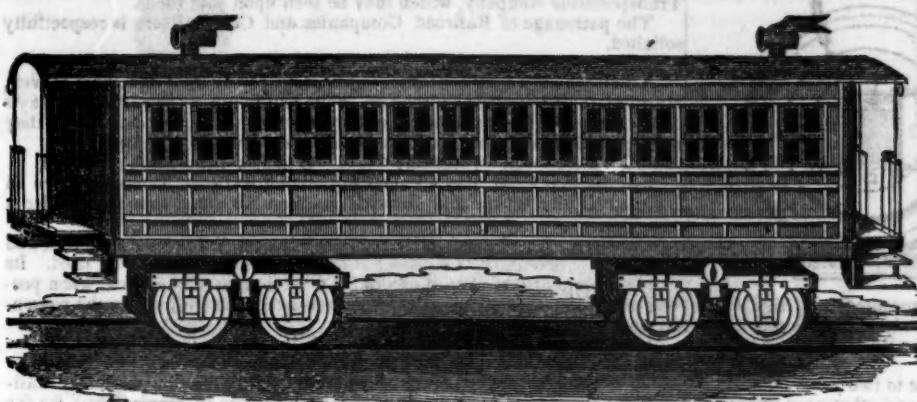
Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; calenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, Paterson, N. J., or 60 Wall street, N. York.

ja45

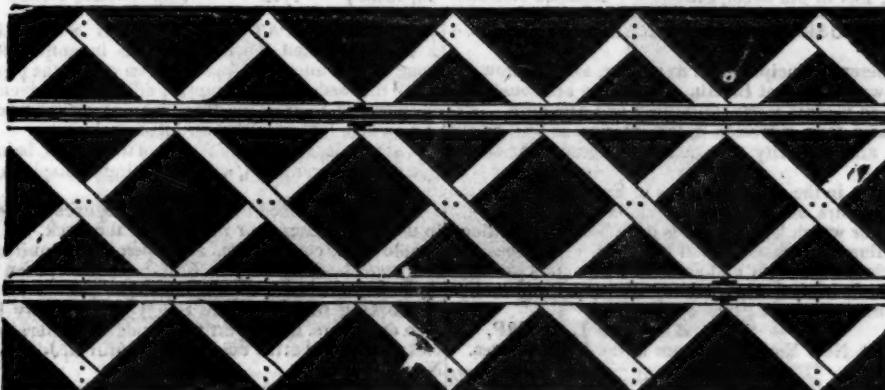
DAVENPORT & BRIDGES' CAR WORKS, CAMBRIDGEPORT, MASS.



Manufacture to Order, Passenger and Freight Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.
Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes.

THE HERRON RAILWAY TRACK,



As seen stripped of the top ballasting

A GOLD MEDAL AWARDED THE INVENTOR BY THE AMERICAN INSTITUTE.

THE UNDERSIGNED RESPECTFULLY
invites the attention of Engineers, and Railroad Companies, to some highly important improvements he has recently made in the Herron system of Railway structure. These improvements enable him to effect a very large reduction in the quantity of Timber, and cost of construction, without impairing the strength of the Track, or its powers of resisting frost, while they secure additional features of excellence in the Drainage and facility of making Repairs.

The above cut represents the "Herron Track" as it is laid on the Philadelphia and Reading, and on the Baltimore and Susquehanna Railroads. The intersection of the sills of the trellis are 5 feet from centre to centre, while in the new construction they are only $\frac{3}{4}$ feet. This renders the string piece unnecessary, thus removing the only objectionable feature found in the Track.

The result of experience has proved that all Tracks constructed with longitudinal timbers, such as mud sills, and more especially, the continuous bearing string pieces retain the rain water that falls between the Rails, which, being thus confined, settles along those timbers, and accumulating in quantity flows rapidly along them on the descending grades, washing out the earth from under the timber, and frequently causing large breaches in the embankments of the road. Whereas all water intercepted by the oblique sills of the trellis, is discharged immediately into the side ditches.

In the 5 foot plan, the Track occupies a Road bed nearly 11 feet wide, while the new construction takes

but 8 feet; the timber being more concentrated under the Rails. A block of hard wood, about 2 feet long and 15 inches wide, is introduced into a square of the trellis for the purpose of giving an additional, and effectual support to the joints of the Rails, which rest upon it. Should these joint blocks become chafed and worn by the working, and imbedding of the chairs, as is now the case on all Railroads, they can be readily replaced without any derangement of the timbers less liable to wear.

The following is a general estimate of its cost near the seaboard. In the interior it will be considerably less.

ESTIMATE OF THE PROBABLE COST OF ONE MILE.		
4,224 Timbers, 11 ft. long, 3 x 6 inches =		
68,696 ft. b.m., at \$10 =	\$686 96	
587 Oak joint blocks 2 ft. x 3 x 15 in. =		
4,403 ft. b.m., at \$13 =	57 24	
13,000 Spikes = 2,250 lbs. at 4½ cts	101 25	
Workmanship free of patent charge	600 00	

Cost of one mile including the laying of the Rail \$1,445 45

He has made other important improvements, which will be shown in properly proportioned models, that give a much better idea of the great strength of the Track than a drawing will do.

Sales of the Patent right to all the distant States will be made on liberal terms.

JAMES HERRON,
Civil Engineer and Patentee.
No. 277 South Tenth St., Philadelphia.

331f

LAP-WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS, FROM 1 1-4 TO 6 INCHES DIAMETER, and

ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,

Patentee.

28 Platt street, New York.

1y25

RAILROAD IRON. MOUNT SAVAGE IRON WORKS

THIS Company are prepared to execute orders for RAILROAD IRON, of any pattern, and equal in point of quality to any other manufactured.

Address J. M. HOWE,

Pres't. Mt. Savage Iron Works,
Dec. 25, 1y*

Maryland.

ENGINEERS' AND SURVEYORS'

INSTRUMENTS MADE BY

EDMUND DRAPER,

Surviving partner of
STANCLIFFE & DRAPER.



No 23 Pear street,
ly10 below Walnut,
near Third, Philadelphia.

THE SUBSCRIBER has on hand a good assortment of his best Leveling and Surveying Instruments, among them his improved Compass for taking angles without the needle—also Bells, suitable for Churches, Railroad Depots, etc. ANDREW MENEELY.
West Troy, May 12, 1847.

1y*21

PIG AND BLOOM IRON.—THE SUBSCRIBERS are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
Vine St. Wharf, Philadelphia.

RAILROAD IRON.—THE "MONTOUR IRON COMPANY," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., Agents.

77 Pine St., New York.

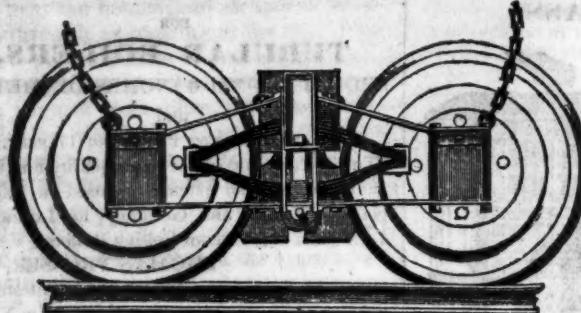
LAWRENCE'S ROSENDALE HYDRALIC CEMENT. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flocks and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight paper-barrels, by JOHN W. LAWRENCE,
142 Front street, New York.

Orders for the above will be received and promptly attended to at this office.

331g

RAY'S EQUALIZING RAILWAY TRUCK.—THE SUBSCRIBER having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—

E for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,

75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwick Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.			HEMPEN ROPES.		CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.	Circumference of rope.	Weight per fathom.	Weight per fathom.	Diameter of iron.	Tons.
11	4½	13 5	10	24 -	50	15-16	20
13	3½	8 3	8½	16 -	27	11-16	13½
14	3½	6 11	7½	12 8	17	9-16	10½
15	2½	5 2	6½	9 4	13½	1-2	7½
16	2½	4 3	6	8 8	10½	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 cwt. for every lb. weight per fathom, so that a rope weighing 5 lbs. per fathom would safely lift 3360 lbs., and so on in proportion. 1y24

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicott's Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLIOTT & ABBOTT.

Factory, 9th street, near Coates, cor. Melon st.

Office, No. 3 North 5th street,

Philadelphia, Pa.

1y25

THE SUBSCRIBERS, AGENTS FOR the sale of Codorus, Glendon, Spring Mill and Valley,

Pig Iron.

Have now a supply, and respectfully solicit the patronage of persons engaged in the making of Machinery, for which purpose the above makes of Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated Fire Bricks and prepared Kaolin or Fire Clay orders for which are promptly supplied.

SAM'L. KIMBER, & CO.,

59 North Wharves, Philadelphia, Pa.

Jan. 14, 1846. [1y4]

1y24

RAILWAY IRON.—THE BEST QUALITY of English Heavy H Rails—60 lbs. to the yard—now in store, landing from the vessel, and on ship board to arrive, for sale on most favorable terms by DAVIS, BROOKS & CO.,

68 Broad St., New York.

Jan. 2. [1y4]

1y26

river, (of which firm the subscriber was late a partner) under the immediate supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846.

W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the best and most economical truck now in use.

[Signed.] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845.

[Signed.] G. A. NICOLL,

Sup't Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction, I have no hesitation in saying that it is the simplest and most economical truck now in use.

[Signed.] T. L. SMITH,

Jersey City, November 4, 1845. N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car.

For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot, { [Signed.] JOHN LEACH,

Jamaica November 12, 1845. } ly19 Sup'r Motive Power

NICOLL'S PATENT SAFETY SWITCH

N for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee

G. A. NICOLLS,

Reading, Pa.

TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods, car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, a45 N. E. cor. 12th and Market sts., Philad., Pa.

RAILROAD IRON.—THE NEW JERSEY Iron Company, Boonton, N. J., are now making Railroad Bars, and are prepared to execute orders for any required pattern. Apply to

FULLER & BROWN, Agents,

No. 139 Greenwich, corner of Cedar street.

June 1, 1847.

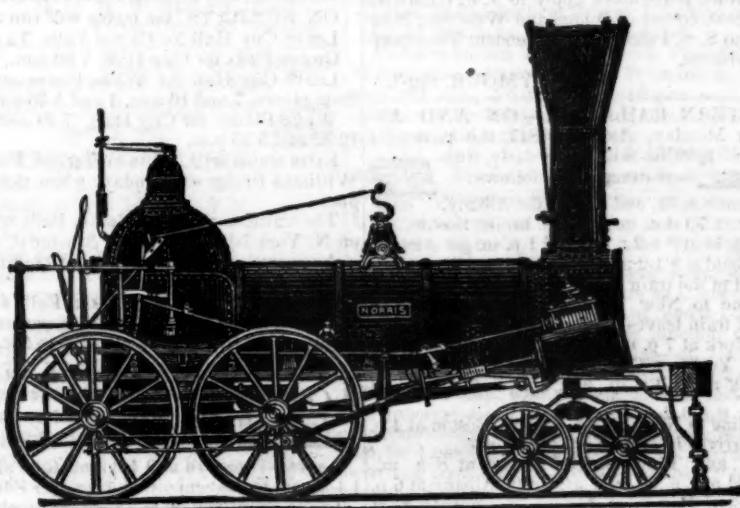
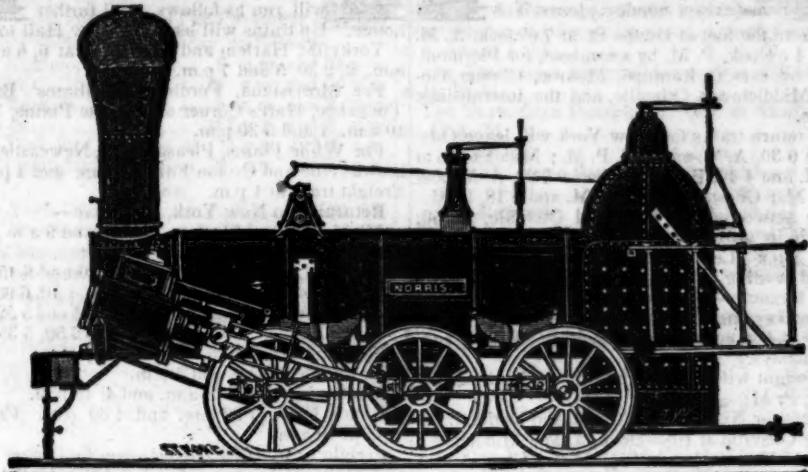
10ft

RAILWAY IRON.—DAVIS, BROOKS

& Co., No. 68 Broad Street, have now in port on Ship-board, 200 Tons of the best English Heavy H Rails, 60 lbs. to the lineal yard, which they offer for sale on favorable terms, also, about 6 to 700 Tons now on the way, to arrive shortly, of the same description of Rail.

46ft

NORRIS' LOCOMOTIVE WORKS. BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches Diameter of Cylinder,	× .20 inches Stroke.
" 2,	14 "	× 24 "
" 3,	14½ "	× 20 "
" 4,	12½ "	× 20 "
" 5,	11½ "	× 20 "
" 6,	10½ "	× 18 "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavitt & Co. New York.

J. Trippet & Son, Richmond, Va.

J. R. Anderson, Tredegar Iron Works, Richmond, Va.

J. Patton, Jr. Philadelphia, Pa.

J. M. L. & W. H. Scovill, Waterbury, Conn.

N. E. Screw Co. Providence, R. I.

Eagle Screw Co. William Parker, Supt. Boston and Worcester. R. R. New Jersey Malleable Iron Co., Newark, N. J.

Gardiner, Harrison & Co., Newark, N. J.

25,000 to 30,000 made weekly.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearings of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY, a45 President of the Newcastle Manuf. Co.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by A. & G. RALSTON Mar. 20th 4 South Front St., Philadelphia.

VALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 fe. with lathes, work benches, Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x46 feet two stories high, with a shed part 45x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.

j45

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ½ in. calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cock, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse, S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

TO LOCOMOTIVE AND MARINE ENGINE Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS, TASKER & MORRIS.
Warehouse S. E. corner 3d and Walnut Sts., Philadelphia.

PATENT INDESTRUCTIBLE WATER Pipes. The subscribers continue to manufacture the above PIPES, of all the sizes and strength required for City or Country use, and would invite individuals or companies to examine its merits.—This pipe, unlike cast iron and lead, imparts neither color, oxide or taste, being formed of strongly riveted sheet iron, and evenly lined on the inside with hydraulic cement. While in the process of laying, it has a thick covering externally of the same—thus forming nature's own conduit of stone. The iron being thoroughly enclosed on both sides with cement, precludes the possibility of rust or decay, and renders the pipe truly indestructible. The prices are less than those of iron or lead. We also manufacture Basins and D. Traps, for Water Closets, on a new principle, which we wish the public to examine at 112 Fulton street, New York.

J. BALL & CO.

29t

35

THE SUBSCRIBER IS PREPARED TO execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.

PETER COOPER 17 Burling Slip.
New York.

LOCOMOTIVE AND CAR AXLES. The Subscribers are now prepared to receive orders for the well known and approved *Reading Locomotives and Car Axles*—drawn to any required pattern from *Bloom Iron only*. Address

SAM'L KIMBER & CO.,
Willow Street Wharf,
Philadelphia, Pa.

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phenix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,
Philadelphia.
ROBERT NICHOLS, Agent,
No. 79 Water St., New York.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from $1\frac{1}{2}$ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,
Albany Iron and Nail Works,

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from $1\frac{1}{2}$ to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WART,
12 Platt street, New York.

JOR CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom.

BACK VOLUMES OF THE RAILROAD JOURNAL for sale at the office, No. 105 Chestnut street.

CONCORD RAILROAD.—PASSENGER TRAINS in connection with the Lowell & Nashua Railroads, run daily between Concord and Boston, Sundays excepted, as follows, viz:

Leave Concord at 5 40 and 11 5 a.m. and 3 15 p.m.
Leave Boston at 7 and 11 a.m. and 5 p.m.
This road runs by Nashua and Manchester to Concord N. H., where it connects with the Northern railroad, extending from Concord to the mouth of White river in Vermont, 18 miles of which road, to Franklin, is now opened, and the remainder is rapidly completing.

It is the direct route to Central and northern New Hampshire, and to Montpelier, Burlington, and other towns in northern Vermont, and has a greater proportion of railroad conveyance in those directions than any other line.

It is also the British Steam Mail Line, and the nearest route from Boston to the Canadas. Numerous stages connect with all parts of the road.

For further information, apply at B. P. Cheney & Co.'s Express office, No. 8 Court St., and Averill & Dean, No. 15 Elm St.

All passengers' baggage should be properly marked, and when valued at more than \$50, notice must be given, and extra charges paid, or no loss beyond such amount will be allowed.

N. G. UPHAM, Supt.

NEW YORK AND ERIE RAILROAD LINE SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 22, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M. Fare between New York and Otisville, \$1 50; way-fare in proportion.

For MILK—Leave Otisville at 5 1/2 o'clock, morning and evening.

For FREIGHT—The barges "Samuel Marsh" and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays.)

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains leaving Otisville at 10 1/2 o'clock, A. M.; Middletown at 11 1/2, A. M.; Goshen at 12 1/2, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For farther particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

24tf

H. C. SEYMOUR, Sup't.

WESTERN RAILROAD.—ON AND AFTER Monday, April 5, 1847, the passenger trains will leave daily, Sunday days excepted, as follows: Boston at 8 a. m. and 4 p. m. for Albany. Albany at 7 1/4 a. m. and 5 p. m. for Boston. Springfield at 8 1/2 a. m. and 1 p. m. for Albany. Springfield at 8 1/2 a. m. and 1 1/2 and 3 p. m. (or arrival of the train from New York) for Boston. Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m., and arrives in New York at 7 p. m., by the steamboats Traveler, New York, or Champion. Returning, leaves New York at 6 1/4 a. m., and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at 4 p. m., and arrives in New York at 5 a. m.

Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p. m., Springfield next morning at 8 1/2, and arrive in Albany at 1 1/2 p. m.

The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7 1/2 a. m. and 7 p. m. For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 8 1/4 a. m., 1 and 3 p. m., and passengers proceed directly on to Brattleboro, Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N. B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Sup't and Eng'r,
C. A. SEAD, Agent, 27 State street, Boston.

BOSTON AND PROVIDENCE RAILROAD. Passenger Notice. Summer Arrangement. On and after Monday, April 5, 1847, the Passenger Trains will run as follows:

Steamboat train via Stonington—Leaves Boston every day, except Sunday, at 5 o'clock p.m.

Accommodation Trains—leave Boston at 7 and 10 1/2 a.m. and 4 p.m., and Providence at 7 1/2 and 10 1/2 a.m. and 4 1/2 p.m.

Dedham trains, leave Boston at 8 a.m., 12 1/2, 3 1/2 and 9 p.m., Leave Dedham at 7 and 9 1/2 a.m. and 2 1/2, 5 1/2 and 8 p.m.

Stoughton trains, leave Boston at 11 1/2 a.m. and 5 p.m. Leave Stoughton at 7 10 a.m. and 3 1/2 p.m.

All baggage at the risk of the owners thereof.

25tf W. RAYMOND LEE, Sup't.

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after Tuesday, June 1st, 1847, the cars will run as follows, until further notice. Up trains will leave the City Hall for Yorkville, Harlem and Morrisania at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisania, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicville and Croton Falls, 7 a.m. and 4 p.m.—Freight train at 1 p.m.

Returning to New York, will leave Morrisania and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 1/2, 6, 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m. Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m. Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m. White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m. Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m. Mechanicsville, 7 48 a.m. and 4 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m. and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9 1/2 p.m. ON SUNDAYS, the trains will run as follows: Leave City Hall for Croton Falls, 7 a.m., 4 p.m. Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will precede each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers \$1, to Mechanicville 87 1/2c., to Newcastle 75c., to Pleasantville 62 1/2c., to White Plains 50c.

LONG ISLAND RAILROAD COMPANY. Summer Arrangement. On and after Monday May 1st, trains will run as follows, except Sundays:

Leave—Brooklyn at 9 1/2 a.m. for Farmingdale, 1 1/2 p.m. for Greenport, at 4 p.m. for Farmingdale. Leave Farmingdale at 7 a.m. for Brooklyn, 12 m. do., at 3 1/4 do. do.

Leave Greenport at 8 1/2 a.m. for Brooklyn.

Leave Jamaica at 8 a.m. for Brooklyn, at 1 p.m. do., at 4 1/2 p.m. do.

On Saturdays, a train will leave Brooklyn for Yaphank, at 4 p.m. Leave Yaphank, on Mondays for Brooklyn at 5 1/2 a.m.

On and after May 15th, and until September 1st, 1847, a train will leave Jamaica at 7 a.m. for Brooklyn—leave Brooklyn at 6 p.m. for Jamaica, and will land and receive passengers at any place between Brooklyn and Jamaica.

On Sundays—leave Brooklyn at 8 1/2 a.m. for Farmingdale; leave Farmingdale at 4 p. m. for Brooklyn.

Freight Trains—leave Brooklyn at 10 a.m. for Greenport; leave Greenport at 12 m. for Brooklyn.

Baggage crates will be in readiness at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side.

The steamer "Statesman," Captain Nash, leaves Greenport for Sag Harbor on the arrival of the Accommodation train from Brooklyn.

25tf DAVID S. IVES, Sup't.

PATERSON RAILROAD Summer Arrangement. Commencing April 20th, 1847, the cars will leave

Paterson at 8 o'clock a.m. 9 1/2 o'clock a.m. 11 1/2 o'clock a.m. 12 1/4 o'clock p.m. 4 o'clock p.m. 5 1/2 o'clock p.m.

On Sunday. 8 o'clock a.m. 9 1/2 o'clock a.m. 4 o'clock p.m. 5 1/2 o'clock p.m.

Office 75 Courtland St.

BALTIMORE AND SUSQUEHANNA RAILROAD.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger

trains run daily, except Sunday, as follows: Leaves Baltimore at 9 a.m. and 3½ p.m. Arrives at 9 a.m. and 6½ p.m. Leaves York at 5 a.m. and 3 p.m. Arrives at 12½ p.m. and 8 p.m. Leaves York for Columbia at 1½ p.m. and 8 a.m. Leaves Columbia for York at 8 a.m. and 2 p.m.

FARE.

Fare to York	\$1 50
" Wrightsville	2 00
" Columbia	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg \$9
Or via Lancaster by railroad 10
Through tickets to Harrisburg or Gettysburg 3
In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at 5½ p.m.
Returning, leaves Owing's Mills at 7 a.m.

D. C. H. BORDLEY, Sup't.

31 ly Ticket Office, 63 North st.

BOSTON AND MAINE RAILROAD. Upper Route, to Portland and the East.

SUMMER ARRANGEMENT,

April 1, 1847.

PORTRLAND TRAINS.

Leave Boston at 7 A.M. and 2½ P.M.
Leave Portland at 7½ A.M. and 3 P.M.

GREAT FALLS TRAIN.

Leave Boston at 5 P.M.

Leave Great Falls at 6½ A.M.

HAVERHILL TRAINS.

Leave Boston at 11½ A.M. and 6:20 P.M.
Leave Haverhill at 6½ A.M. and 4½ P.M.

READING TRAINS.

Leave Boston at 8½ A.M. and 8½ P.M.
Leave Reading at 6 A.M. and 1½ P.M.

MEDFORD BRANCH TRAINS.

Leave Boston at 7½, 11½ A.M., 2½, 5½, 7 P.M.
Leave Medford at 6½, 8 A.M., 1½, 4½, 6 P.M.
The Depot in Boston is on Haymarket Square.

Passengers are not allowed to carry Baggage above \$50 in value, and that personal, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value.

1y31 CHAS. MINOT, Sup't.

NORWICH AND WORCESTER RAILROAD. Summer Arrangement. Change of Hours. Commencing on Wednesday, April 21, 1847.

Accommodation Trains, daily, (except Sunday.) Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 8½ a.m., and 4½ p.m.

The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 2½ p.m. train from Boston.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the steamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 6½ p.m., daily, except Sunday, stopping at Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Leave Norwich at 7, and Worcester at 6 30 a.m. Special contracts will be made for cargoes, or large quantities of freight, on application to the superintendent.

Fares are less when paid for Tickets than when paid in the Cars.

J. W. STOWELL, Sup't.

PHILADELPHIA AND READING RAILROAD.—Passenger Train Arrangement for

1847.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A.M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A.M.

Fares.	Miles.	No. 1.	No. 2.
Between Phila. and Pottsville,	92	\$3 50 and \$3 00	
" Reading,	58	2 25 and 1 90	
" Pottsville	34	1 40 and 1 20	

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets.

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1847.

Summer Arrangement.

Philadelphia for Baltimore 8 a.m. and 10 p.m.

Baltimore for Philadelphia 9 a.m. and 8 p.m.

Connecting with Mail Lines North, South & West.

On Sundays, only the 10 P.M. Lines run.

The Boat Lines, via Newcastle & Frenchtown R.R.

Leave Philadelphia at 3½ p.m. No line on Sun-

Leave Baltimore at 3 p.m. day.

Accommodation Trains between Philadelphia &

Wilmington.—Philadelphia to Wilmington, 8 a.m.

mail, 12½ p.m., 4 p.m., 7 p.m., 10 p.m. mail. Wil-

mington to Philadelphia, 7 a.m., 1 p.m., mail, 4½ p.m., 7 p.m., 12½ a.m., night mail.

J. R. TRIMBLE,

2d Engineer and General Superintendent.

CONNECTION BETWEEN THE BOSTON and Lowell and the Boston and Maine Rail-

roads. On and after April 1st, 1847, passenger trains

between these two roads, will run as follows, viz:

Leaving Lowell at 7, 11 1-4 a.m., and 2 1-2, 4 1-2,

and 6 1-2 p.m., to connect at the junction in Wil-

mington with the eastward trains—at 7 a.m. and

2 1-2 p.m. with those to Portland; at 4 1-2 p.m. to

Great Falls only, with a detention of 45 minutes at

the junction, and at 11 1-4 a.m. and 6 1-2 p.m. to

Haverhill only. Leaving the junction in Wil-

mington, for Lowell, at about 7 1-4 a.m. on arrival of the

morning train from Haverhill; at about 9 a.m., on

arrival of the morning trains from Great Falls. At

about 11 3-4 a.m., on arrival of the morning train

from Portland. At about 5 p.m. on arrival of the

afternoon trains from Haverhill. At about 7 1-4 p.m.

on arrival of the afternoon train from Portland.

WALDO HIGGINSON, Agent.

NEW YORK AND PHILADELPHIA RAIL-

road line—direct. Via Newark, New Brunsw-

wick, Princeton, Trenton, and Bristol. (Through in

six hours.) Leaving New York daily from the foot

of Liberty street.

Morning line 9 o'clock a.m.

Mail pilot line 4½ " p.m.

The lines proceed direct to Bristol without change

of cars, and thence by the new steamer, "John Ste-

vens," to Philadelphia.

FARE BETWEEN NEW YORK & PHILA.

First class cars \$4 00

Second class cars 3 00

Passengers will procure their Tickets at the office

foot of Liberty st., where a commodious steamboat

will be in readiness with Baggage-crates on board.

Fifty pounds of baggage will be allowed to each

passenger in this line, and passengers are expressly

prohibited from taking anything as baggage but

their wearing apparel, which will be at the risk of

the owner.

Philadelphia Baggage-crates are conveyed from

city to city, without being opened by the way. Each

train is provided with a car, in which are apart-

ments and dressing rooms expressly for ladies' use.

Returning, the lines leave Philadelphia from the

foot of Walnut st. at 9 a.m. and 4 1-2 p.m.

The lines for Baltimore leave Philadelphia daily,

except Sundays; at 8 a.m., 3½ and 10 p.m., and Sun-

days only at 10 p.m.—being a continuation of the

line from New York.

LITTLE MIAMI RAILROAD.—OPEN

TO SPRINGFIELD.—Distance 84 miles—

connecting at Xinia and Springfield.

& Co's. daily daylight lines of stages going east

and north, to Columbus, Zanesville, Wheeling,

Cleveland, and Sandusky City, via Urbana, Bellefontaine, Kenton, and the Mad river and lake Erie

railroad, or Columbus, Delaware, and the Mansfield

and Sandusky City railroad—forming, by these con-

nections, the cheapest and most expeditious route to

Buffalo, Niagara Falls, Rochester, Albany, New

York, and Boston.

On and after Thursday, August 13, 1846, until

further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A.M., for Millford,

Foster's Crossing, Deerfield, Morrow, Fort Ancient,

Freepoint, Waynesville, Spring Valley, Xenia, Old

Town, Yellow Springs, and Springfield.

Returning, will leave Springfield at 4 hours 35

minutes A.M. A line of Hacks runs in connection

with the Cars, between Deerfield and Lebanon.

FARE—From Cincinnati to Lebanon \$1 00

" " " Xenia 1 50

" " " Springfield 2 00

" " " Columbus 4 00

" " " Sandusky city 9 00

The Passenger trains runs in connection with

Strader & Gorman's line of Mail Packets to Louis-

ville.

Tickets can be procured at the Broadway Hotel,

Dennison House, or at the Depot of the Company

on East Front street.

Further information and through tickets for the

Stage lines, may be procured at P. Campbell, Agent

on Front street, near Broadway.

The company will not be responsible for baggage

beyond 50 dollars in value, unless the same is re-

turned to the conductor or agent, and freight paid at

of a passage for every \$500 in value over that amount.

The 1½ P.M. train from Cincinnati, and the 9

40 P.M. train from Xenia, will be discontinued on

and after Monday, the 10th instant.

A freight train will run daily.

W. H. CLEMENT, Sup't.

47f

BALTIMORE AND OHIO RAILROAD.

MAIN STEM. The Train carrying the

Great Western Mail leaves Bal-

timore every morning at 7½

Cumberland at 8 o'clock, passing Ellicot's Mills,

Frederick, Harpers Ferry, Martinsburg and Han-

cock, connecting daily each way with the Wash-

ington Trains at the Relay House seven miles

from Baltimore, with the various railroad and

steamboat lines between Baltimore and Philadelphia

and with the lines of Post Coaches between Cum-

berland and Wheeling and the fine Steamboats on

the Monongahela Slack Water between Brown-

ville and Pittsburgh. Time of arrival at both Cum-

berland and Baltimore 5½ P.M. Fare between

those points \$7, and 4 cents per mile for less distances.

Fare through to Wheeling \$11 and time about

36 hours, to Pittsburgh \$10, and time about 32 hours.

Through tickets from Philadelphia to Wheeling

\$13, to Pittsburgh \$12. Extra train daily except

Sundays from Baltimore to Frederick at 4 P.M.,

and from Frederick to Baltimore at 8 A.M.

WASHINGON BRANCH.

Daily trains at 9 A.M. and 5 P.M. and 12 at

night from Baltimore and at 6 A.M. and 5½ P.M. from

Washington, connecting daily with the

North, South and West, at Baltimore, and the

Relay house. Fare \$1 60 through between

Baltimore and Washington, in either direction, 4

cents per mile for intermediate distances.

LEXINGTON AND OHIO RAILROAD.

Trains leave Lexington for Frankfort daily,

at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lex-

ington daily, at 8 o'clock a.m. and 2 p.m. Dis-

tance, 28 miles. Fare \$1 25.

On Sunday but one train, 5 o'clock a.m. from

Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to

15th March) is 6 o'clock a.m. from Lexington, and

ma. 9. from Frankfort, other hours as above.

31y

25tf

AMERICAN RAILROAD JOURNAL.

CENTRAL AND MACON AND WESTERN Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

Miles.
Savannah to Macon—Central Railroad 190
Macon to Atlanta—Macon and Western 101
Atlanta to Oothcaloga—Western and Atlantic.. 80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Macon.	To Atlanta.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings.....	80 50	80 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones.....	0 50	0 62
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot.....	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot.....	0 20 pr. 100 lbs. 35	
Crockery, per cubic foot.....	0 15 "	35
Molasses and Oil, per hhd., (smaller casks in proportion) 9 00	12 50	
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each.....	1 25	1 50
Ploughs, (small,) and Wheel-barrows.....	0 80	1 05
Salt per Liverpool Sack.....	0 70	0 95
Passage—Savannah to Atlanta, \$10; Children, under 12 years of age, half price, Savannah to Macon, \$7.		

Goods consigned to the subscriber will be forwarded free of Commissions.

Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, Forwarding Agent, C. R. R. Savannah, Aug. 15th, 1846.

1 y34

CENTRAL RAILROAD—FROM SAVANNAH to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—On weight goods generally... 50 cts. per hundred. On measurement goods..... 13 cts. per cubic ft. On brls. wet (except molasses and oil)..... \$1 50 per barrel.

On brls. dry (except lime) ... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.

On hds. and pipes of liquor, not over 120 gallons..... \$5 00 per hhd. On molasses and oil..... \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE, Gen'l. Sup't. Transportation.

1 y40

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston,

on the arrival of the boats from Washington, N. C., in connection with the Georgia, and Western and Atlantic—by stage lines and steamers connecting with the Montgomery and West Point, and the Tuscarawas Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily..... \$26 50

Fare through from Charleston to Huntsville, Decatur and Tuscarawas..... 22 00

The South Carolina Railroad Co. engage to receive merchandise consigned to their order, and to forward the same to any point on their road, and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

JOHN KING, Jr., Agent.

125

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES. AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO OOTHCALOGA, 80 MILES.

This Road in connection with the South Carolina Railroad and the Western and Atlantic Railroad now forms a continuous line, 388 miles in length, from Charleston to Oothcaloga on the Oostenaula River, in Cass Co., Georgia.

RATES OF FREIGHT.		Between Agents and Oothcaloga and Dalton.	Between Charleston, Oothcaloga and Dalton.
		250 miles.	356 miles.
1st class.	Boxes of Hats, Bonnets, and Furniture, per cubic foot.....	\$0 16	\$0 26
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.....	0 45	0 70
	Cotton, per 100 lbs.....	0 45	0 65
	Molasses, per hogshead.....	8 50	13 50
	" barrel.....	2 00	3 25
	Salt per bushel.....	0 17	
	Salt per Liverpool sack.....		95
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows...	0 75	1 37

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight may be paid at Augusta, Atlanta, or Oothcaloga.

J. EDGAR THOMSON,
Ch. Eng. and Gen. Agent.
Augusta, Sept. 2d, 1846.

*44 ly

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4 P.M., Philadelphia at 10 P.M., and Baltimore at 6 A.M., proceed without delay at any point, by this line, reaching Richmond in eleven, Petersburg in thirteen and a half hours, and Charleston, S. C., in two days from Baltimore.

Fare from Baltimore to Charleston..... \$21 00

" " " Richmond..... 6 60

For Tickets, or further information, apply at the Southern Ticket Office, adjoining the Washington Railroad Office, Pratt street, Baltimore, to

STOCTON & FALLS, Agents.

THE WESTERN AND ATLANTIC RAILROAD.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sunday excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warren-ton, Huntsville, Decatur and Tuscarawas, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARRETT,
Chief Engineer.

Atlanta, Georgia, April 16th, 1846.

1 y1

FRANKLIN HOUSE,

No. 105 Chestnut Street, Philadelphia. The undersigned takes the liberty of calling the attention of the readers of the Journal to the fact that the Office is removed from New York to the FRANKLIN HOUSE, Philadelphia, where he will be always pleased to meet and greet them. They will not only find a pleasant Reading Room, with lots of foreign periodicals, treating of Railroads and Machinery, but they will always find good-sized and airy rooms—clean beds—and a well supplied table. If they would have further proof of this, they have only to call, and judge for themselves, and much oblige the proprietor,

D. K. MINOR.

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This is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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